

Amendments to the Specification

Please amend the paragraph on page 11, line 24:

Suppose, for the purpose of analyzing the images in FIGS. 2, 3, 4 and 5, that the technician, dentist or other exposing this patient's digital dental X-ray plate 104 has oriented the "front side" defined above, carrying the open circle, and consequently the sensitive side of the plate 104, toward the X-ray source located at the position ~~SORCU~~ SOURCE L, and in the lower right corner of the plate 104 as viewed from the direction of the X-ray source located at the position SOURCE L. FIG. 3 is the image read from the "front side" of the plate 104, when the plate so oriented is exposed by an X-ray source at the location designated SOURCE R. If the dentist reading such an image is aware that the exposure has been made from the "wrong" side, i.e., the "back side", of the plate, the dentist can use image processing software to reorient the image by horizontally flipping the image, as shown in FIG. 2. Mark 201 is transposed from the right to the left, side of the image. The same plate 104, oriented the same way, but exposed from an X-ray source at the location designated SOURCE L, when read from the sensitive side of the plate 104, produces the image shown in FIG. 5. The image of FIG. 4 can be inadvertently produced by manipulation of the image processing software to horizontally flip the image of FIG. 4. Since FIGS. 2 and 4, and FIGS. 3 and 5, are respectively indistinguishable without knowing from which side the plate 104 was exposed, there is no way to determine which side of the patient's jaw the condition 103, seen only in the images in FIGS. 2 and 3, is on. If condition 103 does not produce any externally observable symptoms, the X-ray image may be the only evidence upon which the dentist can rely for determining the location to treat. An ambiguity is introduced into the record that cannot be resolved without another exposure of the patient to radiation. Digital plate technology in its current form does not assure that the orientation of the image can be ascertained. Current technology instead relies on the statistical likelihood that the technician will expose the film correctly vast majority of the time. However, no unambiguous marker of the exposure orientation exists within the image. The following four examples illustrate the problem of a lack of an internal reference:

1. If only one image is available for viewing independently of other patient information, the viewer will not be able to identify the correct orientation of the image, except by making an assumption that it was exposed from the "front side".
2. If a technician is consistently making the error of exposing the films from the "back side", unknown to the viewer, the viewer will conclude when comparing images that images (in fact) exposed and oriented correctly are incorrectly oriented (which is not factually correct), thus compounding the problem.
3. A disgruntled or incompetent employee can wreak havoc with the records without anyone realizing it, or having a way of tracing the problem by using software to alter the apparent orientation of images in the records.
4. A person with fraudulent intent can expose the plate intentionally from the "back side" in order to make the image appear as though it depicts the opposite side of the body.